

Condensed Matter Theory Center Seminar



Friday, January 25
11:00 am – 12:30 pm, Physics Building 2205

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“Repeatedly driven systems”

When we do work on a system, we transfer energy. Repeatedly adding a small amount of energy to the system by a cyclic process can result in a large energy transfer and cause the system to undergo a phase transition. I will show that: 1) when the driving is aperiodic the final energy distribution of the system displays two qualitatively different regimes with a continuous second order like transition between them. 2) When the driving is periodic new physics emerge and the system can go across a many-body localization transition in the energy space at the critical value of the driving frequency. In this talk I will present specific calculations to support these findings and I will show that the localization transition is related to the break down of the short time (Magnus) expansion for the evolution operator.

(All are welcome to attend)

